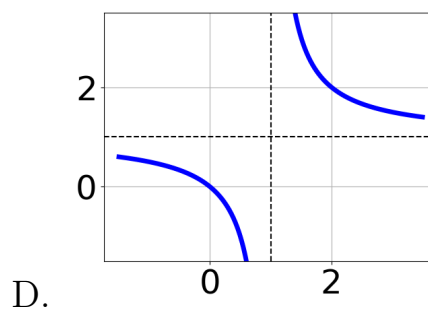
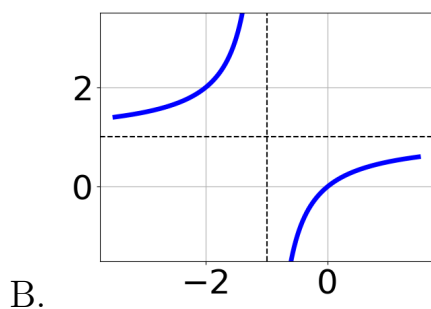
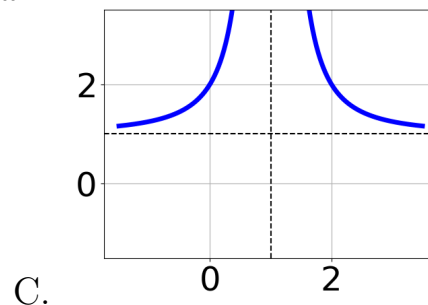
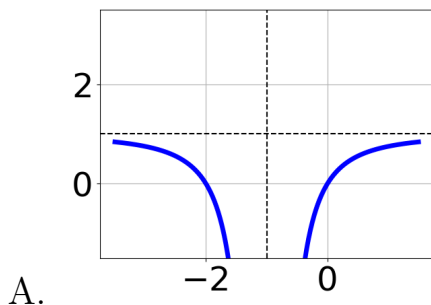


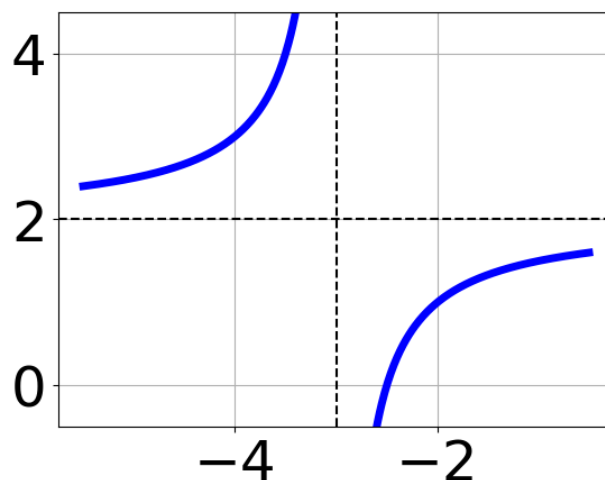
1. Choose the graph of the equation below.

$$f(x) = \frac{1}{x-1} + 1$$



E. None of the above.

2. Choose the equation of the function graphed below.



A. $f(x) = \frac{1}{x-3} + 2$

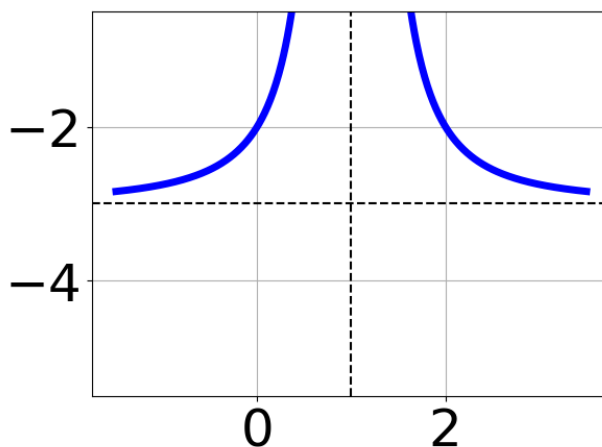
B. $f(x) = \frac{-1}{x+3} + 2$

C. $f(x) = \frac{-1}{(x+3)^2} + 2$

D. $f(x) = \frac{1}{(x-3)^2} + 2$

E. None of the above

3. Choose the equation of the function graphed below.



A. $f(x) = \frac{-1}{x-1} + 4$

B. $f(x) = \frac{-1}{(x-1)^2} + 4$

C. $f(x) = \frac{1}{(x+1)^2} + 4$

D. $f(x) = \frac{1}{x+1} + 4$

E. None of the above

4. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{-39}{-78x - 39} + 1 = \frac{-39}{-78x - 39}$$

A. $x_1 \in [-0.6, 0.2]$ and $x_2 \in [-0.3, 2.1]$

- B. $x \in [-0.5, 0.5]$
 - C. All solutions lead to invalid or complex values in the equation.
 - D. $x \in [0.3, 1.4]$
 - E. $x_1 \in [-0.6, 0.2]$ and $x_2 \in [-0.6, -0.2]$
-

5. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{6x}{6x+6} + \frac{-4x^2}{-12x^2-36x-24} = \frac{5}{-2x-4}$$

- A. $x_1 \in [-3.46, -2.65]$ and $x_2 \in [-1.06, -0.71]$
 - B. $x_1 \in [-3.46, -2.65]$ and $x_2 \in [-0.77, -0.49]$
 - C. $x \in [-2.32, -0.88]$
 - D. All solutions lead to invalid or complex values in the equation.
 - E. $x \in [-1.35, 0.49]$
-

6. Determine the domain of the function below.

$$f(x) = \frac{3}{12x^2 + 29x + 15}$$

- A. All Real numbers except $x = a$ and $x = b$, where $a \in [-15.6, -13.6]$ and $b \in [-13.9, -11.7]$
 - B. All Real numbers except $x = a$, where $a \in [-1.7, -1.5]$
 - C. All Real numbers except $x = a$ and $x = b$, where $a \in [-1.7, -1.5]$ and $b \in [-0.8, -0.2]$
 - D. All Real numbers.
 - E. All Real numbers except $x = a$, where $a \in [-15.6, -13.6]$
-

7. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{84}{98x - 98} + 1 = \frac{84}{98x - 98}$$

- A. $x_1 \in [-1.3, 0.3]$ and $x_2 \in [0, 3]$
 - B. All solutions lead to invalid or complex values in the equation.
 - C. $x_1 \in [0.4, 1.8]$ and $x_2 \in [0, 3]$
 - D. $x \in [1.0, 2.0]$
 - E. $x \in [-1.3, 0.3]$
-

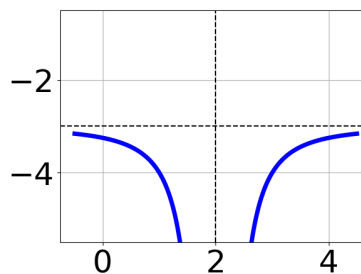
8. Solve the rational equation below. Then, choose the interval(s) that the solution(s) belongs to.

$$\frac{4x}{-5x + 6} + \frac{-4x^2}{-15x^2 + 28x - 12} = \frac{3}{3x - 2}$$

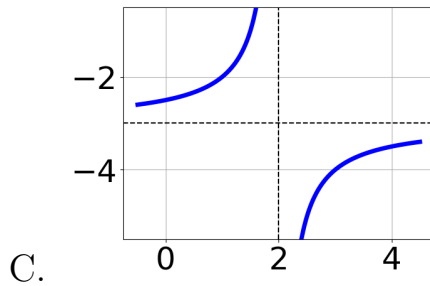
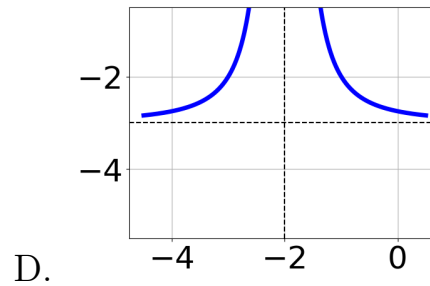
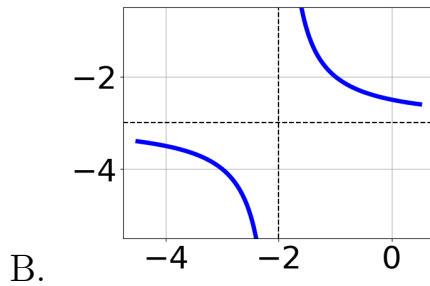
- A. $x \in [0.97, 1.79]$
 - B. $x_1 \in [-2.15, -1.77]$ and $x_2 \in [1.17, 1.24]$
 - C. $x_1 \in [-2.15, -1.77]$ and $x_2 \in [1.04, 1.13]$
 - D. All solutions lead to invalid or complex values in the equation.
 - E. $x \in [0.33, 0.72]$
-

9. Choose the graph of the equation below.

$$f(x) = \frac{1}{x + 2} - 3$$



A.



E. None of the above.

10. Determine the domain of the function below.

$$f(x) = \frac{4}{30x^2 - 49x + 20}$$

- A. All Real numbers except $x = a$, where $a \in [19.95, 20]$
- B. All Real numbers except $x = a$ and $x = b$, where $a \in [0.78, 0.83]$ and $b \in [0.82, 0.84]$
- C. All Real numbers.
- D. All Real numbers except $x = a$ and $x = b$, where $a \in [19.95, 20]$ and $b \in [29.98, 30.02]$
- E. All Real numbers except $x = a$, where $a \in [0.78, 0.83]$